

BEST AVAILABLE COPY

SIXTH EDITION

Organic Chemistry

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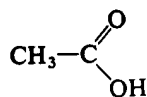


Prentice Hall, Englewood Cliffs, New Jersey 07632

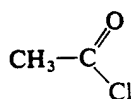
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20.2 Nomenclature

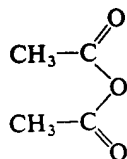
The names of acid derivatives are taken in simple ways from either the common name or the IUPAC name of the corresponding carboxylic acid. For example:



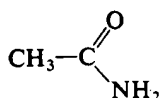
Acetic acid
Ethanoic acid



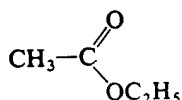
Acetyl chloride
Ethanoyl chloride



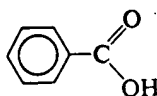
Acetic anhydride
Ethanoic anhydride



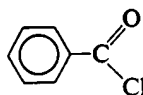
Acetamide
Ethanamide



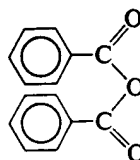
Ethyl acetate
Ethyl ethanoate



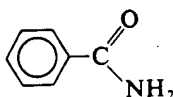
Benzoic acid



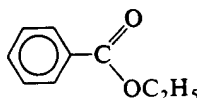
Benzoyl chloride



Benzoic anhydride



Benzamide



Ethyl benzoate

Change:

-ic acid to -yl chloride

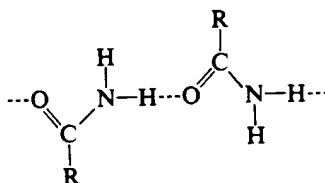
acid to anhydride

-ic acid of common name
(or -oic acid of IUPAC name)
to -amide

-ic acid to -ate,
preceded by name of
alcohol or phenol group

20.3 Physical properties

The presence of the C=O group makes the acid derivatives polar compounds. Acid chlorides and anhydrides (Table 20.1) and esters (Table 20.2, p. 769) have boiling points that are about the same as those of aldehydes or ketones of comparable molecular weight (see Sec. 18.3). Amides (Table 20.1) have quite high boiling points because they are capable of strong intermolecular hydrogen bonding.



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irritating o
acids.

Acetyl cl
Propiony
n-Butyryl
n-Valeryl
Stearoyl cl
Benzoyl cl
p-Nitrober
chloride
3,5-Dinitro
chloride

Acetic anh
Phthalic ar

20.4 Nu

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acid by simpl
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21.11-21.12 a